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Town of Narragansett
Chapter 1666
Police Pension Plan

July 1, 2022
Actuarial Valuation Report

Page

At the request of the plan sponsor, this report summarizes the Town of Narragansett Chapter 1666 Police Pension Plan as of July 1, 2022. The purpose of this report is to communicate the following results of the valuation:

• Funded Status; and
• Actuarially Determined Contribution as of July 1, 2022 for plan year ending June 30, 2024

This report has been prepared in accordance with the applicable Federal and State laws. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census information has been provided to us by the Town. Asset information has been provided to us by the Board. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the Town. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report.

To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

In preparing the results, Nyhart used Proval valuation software developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing pension valuations. We coded the plan provisions, assumptions, methods, and participant data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any material weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart

Lawrence Watts, Jr., FSA, CFA, EA, MAAA

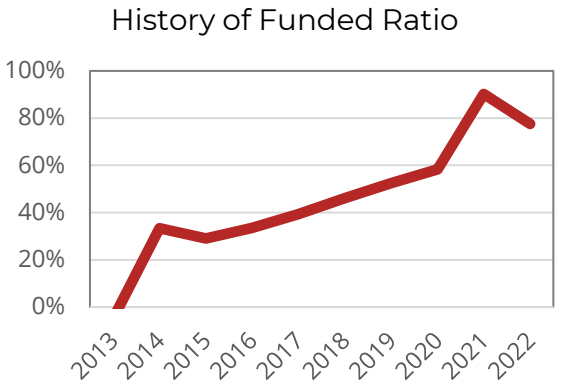
Jennifer Street, ASA, EA, MAAA

December 23, 2022
Date

Summary Results

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age normal method.

Valuation Date **For Plan Year Ending**	**July 1, 2021** **June 30, 2023**	**July 1, 2022** **June 30, 2024**
Funded Status Measures		
Entry Age Accrued Liability	$1,896,675	$1,938,683
Actuarial Value of Assets	1,711,429	1,503,767
Unfunded Accrued Liability	$185,246	$434,916
Funded Percentage (AVA)	90.2%	77.6%
Funded percentage (MVA)	90.2%	77.6%
Cost Measures		
Actuarially Determined Contribution	$99,172	$145,195
Actuarially Determined Contribution (as a percentage of payroll)	N/A	N/A
Asset Performance		
Market Value of Assets (MVA)	$1,711,429	$1,503,767
Actuarial Value of Assets (AVA)	$1,711,429	$1,503,767
Actuarial Value/Market Value	100.0%	100.0%
Participant Information		
Active Participants	0	0
Terminated Vested Participants	0	0
Retirees, Beneficiaries, and Disabled Participants	10	9
Total	10	9



Changes since Prior Valuation and Key Notes

There have been no changes to the plan provisions since the last valuation.

The mortality for healthy participants has been updated from the PubS-2010 Public Safety mortality table with generational improvements based on MP-2020 to the PubS-2010 Public Safety mortality table with generational improvements based on MP-2021. This change caused an increase in the funding liability.

The mortality for disabled participants has been updated from the PubS-2010 Disabled Public Safety mortality table with generational improvements based on MP-2020 to the PubS-2010 Disabled Public Safety mortality table with generational improvements based on MP-2021. This change caused an increase in the funding liability.

The mortality for survivors has been updated from the Pub-2010 Continuing Survivor Mortality Table with generational improvements based on MP-2020 to the Pub-2010 Continuing Survivor Mortality Table with generational improvements based on MP-2021. This change caused an increase in the funding liability.

The interest rate has been updated from 7.15% to 7.10%. This change caused an increase in the funding liability.

Data updates were made to the dates of birth of participants' beneficiaries for those currently receiving a benefit. This change caused a net increase in the funding liability.

Five Year Valuation Summary

	07/01/2018	07/01/2019	07/01/2020	07/01/2021	07/01/2022
Funding					
Accrued Liability	$2,256,065	$2,176,083	$2,186,850	$1,896,675	$1,938,683
Actuarial Value of Assets	$1,038,723	$1,141,073	$1,274,929	$1,711,429	$1,503,767
Unfunded Actuarial Accrued Liability	$1,217,342	$1,035,010	$911,921	$185,246	$434,916
Funded Percentage	46.0%	52.4%	58.3%	90.2%	77.6%
Normal Cost (NC)	$0	$0	$0	$0	$0
Actual Contribution	$267,000	$267,000	$267,000	TBD	TBD
Recommended Contribution	$198,887	$187,298	$183,577	$99,172	$145,195
Interest Rate	7.20%	7.20%	7.00%	7.15%	7.10%
Rate of Return					
Market Value of Assets	8.9%	7.5%	9.2%	29.4%	-16.0%
Demographic Information					
Active Participants	0	0	0	0	0
Terminated Vested Participants	0	0	0	0	0
Retired Participants	8	8	6	5	5
Beneficiaries	4	3	4	3	2
Disabled Participants	2	2	2	2	2
Total Participants	14	13	12	10	9
Covered Payroll	N/A	N/A	N/A	N/A	N/A

Identification of Risks

The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented in this report. Therefore, it is critical to understand the risks facing this pension plan. The following table shows the risks we believe are most relevant to the Town of Narragansett Chapter 1666 Police Pension Plan. The risks are generally ordered with those we believe to have the most significance at the top. Also shown are possible methods by which a more detailed assessment of the risk can be performed.

Type of Risk	Method to Assess Risk
Investment Return	Scenario Testing; Asset Liability Study
Contribution Risk	Scenario Testing
Participant Longevity	Projections and Contribution Strategy

Plan Maturity Measures - July 1, 2022

Each pension plan has a distinct life-cycle. New plans promise future benefits to active employees and then accumulate assets to pre-fund those benefits. As the plan matures, benefits are paid and the pre-funded assets begin to decumulate until ultimately, the plan pays out all benefits. A plan's maturity has a dramatic influence on how risks should be viewed. The following maturity measures illustrate where the Town of Narragansett Chapter 1666 Police Pension Plan falls in its life-cycle.

Duration of Liabilities: 7.5
Duration is the most common measure of plan maturity. It is defined as the sensitivity of the liabilities to a change in the interest rate assumption. The metric also approximates the weighted average length of time, in years, until benefits are expected to be paid. A plan with high duration is, by definition, more sensitive to changes in interest rates. A plan with low duration is more susceptible to risk if asset performance deviates from expectations as there would be less time to make up for market losses in adverse market environments while more favorable environments could result in trapped surplus from gains. Conversely, high duration plans can often take on more risk when investing, and low duration plans are less sensitive to interest rate fluctuations.

Demographic Distribution - Ratio of Actively Accruing Participants to All Participants: 0%
A plan with a high ratio is more sensitive to fluctuations in salary (if a salary-based plan) and statutory changes. A plan with a low ratio is at higher risk from demographic experience. Such a plan should pay close attention to valuation assumptions as there will be less opportunity to realize future offsetting gains or losses when current experience deviates from assumptions. Plans with a low ratio also have limited opportunities to make alterations to plan design to affect future funded status.

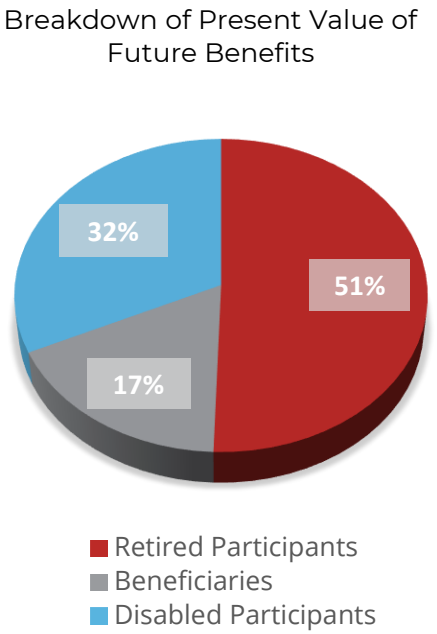
Asset Leverage - Ratio of Payroll for Plan Participants to Market Value of Assets: N/A
Younger plans typically have a large payroll base from which to draw in order to fund the plan while mature plans often have a large pool of assets dedicated to providing benefits to a population primarily consisting of members no longer on payroll. Plans with low asset leverage will find it more difficult to address underfunding, as the contributions needed to make up the deficit will represent a higher percentage of payroll than for a plan with high asset leverage.

Benefit Payment Percentage - Ratio of Annual Benefit Payments to Market Value of Assets: 13.0%
As a plan enters its decumulation phase, a larger percentage of the pre-funded assets are paid out each year to retirees. A high percentage is not cause for alarm as long as the plan is nearly fully funded. However, such a plan is more sensitive to negative asset performance, especially if cash contributions are not an option to make up for losses.

Present Value of Future Benefits

The Present Value of Future Benefits represents the future benefits payable to the existing participants.

	July 1, 2022
Present Value of Future Benefits	
Active participants	
Retirement	$0
Disability	0
Death	0
Termination	0
Refund of contributions	0
Total active	$0
Inactive participants	
Retired participants	$980,071
Beneficiaries	339,941
Disabled participants	618,669
Terminated vested participants	0
Total inactive	$1,938,683
Total	$1,938,683
Present value of future payrolls	N/A



Funding Liability

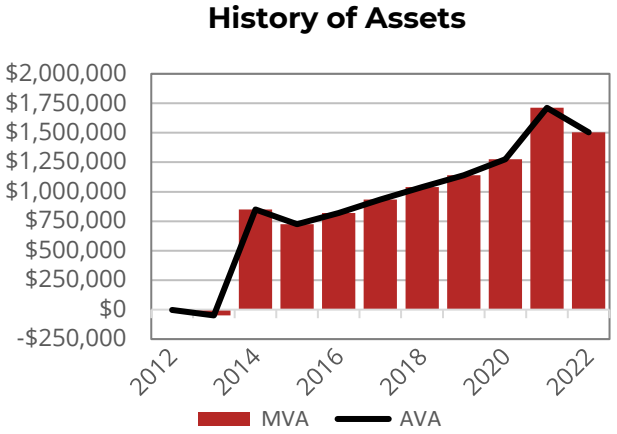
The Funding Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions.

	July 1, 2022
Entry Age Normal Liabilities	
Active participants	
Retirement	$0
Disability	0
Death	0
Termination	0
Refund of contributions	0
Total Active	$0
Inactive participants	
Retired participants	$980,071
Beneficiaries	339,941
Disabled participants	618,669
Terminated vested participants	0
Total Inactive	$1,938,683
Total	$1,938,683
Normal Cost	$0

Asset Information

The amount of assets backing the pension promise is typically the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

	July 1, 2022
Market Value Reconciliation	
Market value of assets, beginning of prior year	$1,711,429
Employer Contributions	$267,000
Investment income	($279,493)
Benefit payments	($195,169)
Market value of assets, beginning of current year	$1,503,767
Return on Market Value	-16.02%
Market value of assets available for pension benefits	$1,503,767
Actuarial value of assets	
Value at beginning of current year	$1,503,767



Reconciliation of Gain/Loss

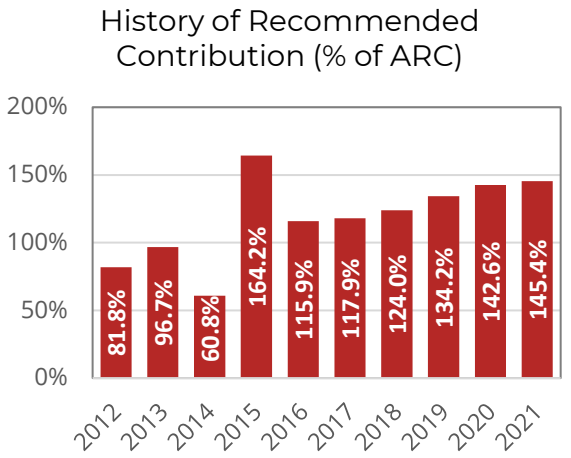
	July 1, 2022
Liability (gain)/loss	
Actuarial liability, July 1, 2021	$1,896,675
Normal cost	0
Benefit payments	(195,169)
Expected Interest	128,755
Change in actuarial assumptions	12,291
Expected actuarial liability, beginning of current year	$1,842,552
Actual actuarial liability	$1,938,683
Liability (gain)/loss	$96,131
Asset (gain)/loss	
Actuarial value of assets, July 1, 2021	$1,711,429
Contributions	267,000
Benefit payments	(195,169)
Expected investment return	124,891
Expected actuarial value of assets, beginning of current year	$1,908,151
Actual actuarial value of assets, beginning of current year	$1,503,767
Asset (gain)/loss	$404,384
Total (gain)/loss	$500,515

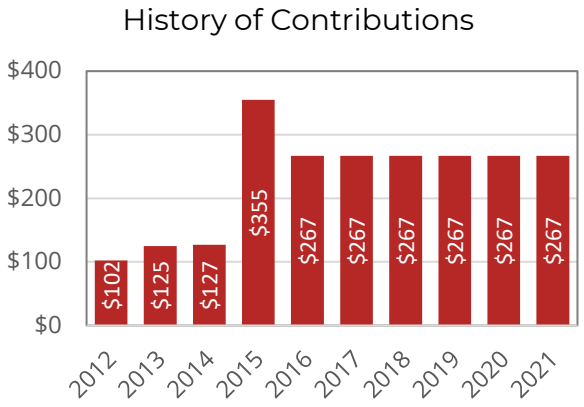
Development of Actuarially Determined Contribution

The actuarially determined contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

Valuation Date	**July 1, 2022**
For Plan Year Ending	**June 30, 2024**
Funded Position	
1. Entry age accrued liability	$1,938,683
2. Actuarial value of assets	$1,503,767
3. Unfunded actuarial accrued liability (UAAL)	$434,916
Employer Contributions	
1. Normal Cost	$0
2. Amortization of UAAL	130,999
3. Applicable interest	14,196
4. Actuarially determined contribution	$145,195

Contribution Timing
The Actuarially Determined Contribution is calculated assuming contributions are made in the middle of the plan year.





Demographic Information

The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

	July 1, 2021	July 1, 2022
Participant Counts		
Active Participants	0	0
Retired Participants	5	5
Beneficiaries	3	2
Disabled Participants	2	2
Terminated Vested Participants	0	0
Total Participants	10	9

	July 1, 2021	July 1, 2022
Retiree Statistics		
Average Age	75.9	76.9
Average Monthly Benefit	$1,755	$1,755
Beneficiary Statistics		
Average Age	87.0	86.0
Average Monthly Benefit	$1,241	$1,863
Disabled Participants Statistics		
Average Age	70.8	71.8
Average Monthly Benefit	$1,926	$1,969

Participant Reconciliation

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Totals
Prior Year	0	0	2	5	3	10
Retired						
To Death	0	0	0	0	0	0
Survivor						
To Death	0	0	0	0	(1)	(1)
Additions	0	0	0	0	0	0
Departures	0	0	0	0	0	0
Current Year	0	0	2	5	2	9

Name of Plan	Town of Narragansett Chapter 1666 Police Pension Plan
Participation	All members of the permanent Police Force who were hired prior to July 1, 1978 and refused the September 1984 offer to join the Chapter 16 Pension Plan
Benefits	
Normal Retirement	
Eligibility	The attainment of age 65 or the completion of 20 years of service
Benefit	50% of Final Earnings
Disability Retirement	
Eligibility	A member becomes unable to perform Active Police Duty by reason of clearly proved physical or mental infirmities
Benefit	50% of Final Earnings in the Year of Disability
Preretirement Death	
Eligibility	An active member dies after 25 Years of Service
Benefit	The member's widow shall receive 67.5% of the member's Accrued Benefit continuing until their death or remarriage
Optional Forms of Payment	Married participants are entitled to a 67.5% Joint and Survivor Annuity. If not married, participants are entitled to a Life Annuity.

Except where otherwise indicated, the following assumptions were selected by the plan sponsor with the concurrence of the actuary. Prescribed assumptions are based on the requirements of the relevant law, the Internal Revenue Code, and applicable regulation.

Valuation Date	July 1, 2022
Participant and Asset Information Collected as of	July 1, 2022
Cost Method (CO)	Entry Age Normal Cost Method
Amortization Method (CO)	Unfunded Actuarial Accrued Liability is amortized over the average expected future lifetime of the plan participants
Asset Valuation Method	The actuarial value of assets is equal to the market value of assets
Interest Rates (CO)	7.10% This assumption has been set by the plan sponsor in conjunction with their asset advisor. Detailed evaluation of this assumption was outside the scope of our engagement.
Expense and/or Contingency Loading (FE)	None
Mortality Rates (FE)	
Healthy	PubS-2010 Public Safety mortality table with generational improvements based on MP-2021
Healthy – Survivors	Pub-2010 Continuing Survivor mortality table with generational improvements from 2010 based on MP-2021

Mortality Rates (FE) **- Continued**

Disabled	PubS-2010 Disabled Public Safety mortality table with generational improvements from 2010 based on the SOA Scale MP-2021 As the plan is not large enough to have credible experience, mortality assumptions are set to reflect general population trends.
Cost of Living Adjustment	3.00% for eligible employees, 0.00% otherwise
Contribution Timing	The Actuarially Determined Contribution is calculated assuming contributions are made in the middle of the plan year.

FE indicates an assumption representing an estimate of future experience
MD indicates an assumption representing observations of estimates inherent in market data
CO indicates an assumption representing a combination of an estimate of future experience and observations of market data

The actuarial report also shows the necessary items required for plan reporting and any state requirements.

- ✓ Schedule of Amortizations

Schedule of Amortizations

July 1, 2022

Date Established	Original Amount	Remaining Years	Balance	Payment
7/1/2014	$1,694,385	5	$846,277	$193,233
7/1/2015	$131,154	5	$67,923	$15,509
7/1/2016	($37,869)	6	($22,780)	($4,476)
7/1/2017	($88,113)	6	($56,103)	($11,024)
7/1/2018	($117,648)	7	($84,629)	($14,713)
7/1/2019	($77,890)	7	($59,777)	($10,393)
7/1/2020	($16,711)	9	($14,527)	($2,091)
7/1/2021	($612,178)	10	($573,699)	($76,620)
7/1/2022	$332,231	11	$332,231	$41,574
Total			$434,916	$130,999